



The Pileup

Newsletter of the CDXA

What about this Solar Minimum?

By John Scott, K8YC

Are you feeling down about being at the bottom of the solar cycle? Unless you've been DXing for the past 40 years and have over 2300 entries in the DXCC Challenge, your feelings may be unfounded. In the past 5 months or so, we've had a number of DXpeditions to entities that are in the Top 50 of the "Most Wanted". Remember that in January 2008, the scientists said we've arrived at the bottom of the cycle. Things aren't that bad. You decide.

Congo, TN6X and TN9Z. Franz Langner and Baldur Drobnica paid a quick visit to the Congo in December 2007. Personal result: 1 new Challenge tick.

Palestine, E4/OM2DX. Michal Horecky and friends made a surprise visit to Palestine. They gave the DX world 29,450 QSOs in about a week proceeding Christmas. Personal result: 1 all time "New One", one new Challenge tick.

Guinea-Bissau, J5C. A French team did a fine job operating from J5. Ending January 28, they put 61,939 QSOs in the log with 16,321 of them going to North America. Personal result: 5 new Challenge ticks.

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K8YC	John Scott	Editor

Ducie Island, VP6DX. A multinational team did a record-setting job of putting this relatively new entity on the air. It seemed they could be heard on all bands. Ending 27 February, this DXpedition set a new all time record of 183,686 QSOs. While doing that, they made 97,860 QSOs with hams in North America. Personal result: 6 new Challenge ticks, and 11 new band/mode combinations.

Cocos Island, TI9KK. Two CDXAers were on this trip to this Costa Rican island where "Jurassic Park" was filmed. Joe Blackwell, AA4NN, and Chuck Gray, W4GMY, were there for us and CDXA also provided sponsorship for this DXpedition. Problems with some licensing issues late in the game shortened their visit somewhat and re-

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CDXA PacketCluster & Other Communication Systems		
W4DXA (11 mi. NE of Mooresville)	144.93 MHz (1200 bits/second)	441.00 MHz (9600 bits/second)
K4MD Charlotte, NC	144.91 MHz (1200 bits/second)	Not Available on 9600 bits/second
NG4DX (Digi near Galax, VA)	144.95 MHz (1200 bits/second) Connect to NG4DX, then type "C W4DXA"	
K4MD (AR Cluster via Telnet)	k4md.no-ip.com	
CDXA Repeater 147.18 MHz (+600)	W4DXA, Near Fort Mill, SC	
Echolink Interconnect to CDXA Rptr.	Login to K4DXA -R	
World Wide Web Homepage	www.cdxa.org	
Wednesday Luncheon (11:30 AM)	Murphy's Food and Spirits, 131 E. Woodlawn Road, Charlotte, NC	

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duced their QSO count to 17,147, but they still made many happy. Personal result: Zero QSOs, but don't feel sorry for me, I was away skiing in Snowmass that entire week!

Clipperton Island, TX5C. Here's a DXpedition that was supposed to have our own Dave Anderson, K4SV as a participant. Some business issues kept Dave at home, and perhaps that was good for him. The team got hammered first by unseasonably hot conditions during setup, delaying the onset. Then they got hammered by storms which damaged gear and forced an early withdrawal. Still, they managed 71,794 QSOs overall and made 49,831 QSOs with North America. CDXA was a sponsor of this DXpedition, too. Personal result: 1 new DXCC CW counter and 5 new ticks for the DXCC Challenge.

Mauritania, 5T5DC. A German team decided to give us Mauritania, and give it to us they did. They operated until 30 March and gave the world 76,127 QSOs. At times this group and a group operating in Rwanda at the same time got in each other's way resulting in some unflattering "DX Police Actions", but everybody got a shot at working Mauritania. Personal result: 2 new Challenge ticks.

Rwanda, 9X0R. A multinational team originated by a Spanish group activated this entity which had been racked by civil war for almost 10 years. A member of the team was CDXA's own Fabrizio "Brix" Vedovelli (IN3ZNR). Because one of our number was on the DXpedition to this "rare one", CDXA lent some financial support, and we should see our logo on the QSL card. The Rwanda operation ended on 26 March with

62,679 QSOs on the books and 14,535 new entries in the logs of those living in North America. Personal result: One all time "New One" and 5 new DXCC Challenge ticks.

Iraq, YI9PT INDEXA, NCDXF and others donated money to buy a SteppIR antenna to put "Radar" (K2PT) on the air with some punch. Having a yagi in Iraq to beam energy stateside has made many hams happy.

I'm sure your personal results working the foregoing DXpeditions were every bit as good as mine because my antenna system—well, it is nothing to write home about! Many DXpeditions like those above only come to fruition when organizations like INDEXA, NCDXF, and even clubs like ours provide some "seed money" to get them started. So, pat yourself on the back for supporting DXing, and cheer up—things will get better—if that's possible!!!

Ten and Twenty Years Ago. . . .

(The items below were extracted from the archived copies of The Pileup, available on the CDXA website.

Ten Years Ago

A bunch of CDXAers "ganged up" on the 147.18 repeater at K4MQG's place to figure out why it wasn't hearing well. It seems like a teeny bit of water had made its way into the connector (sound familiar?). . . . Bill Tippet (W4ZV)—the World's top man on 160m—took the time to write a piece for the Pileup to compare operating on 160m in North Carolina versus his success on 160m in Colorado. . . . Editor Don Daso reminisced about the great times and learning experiences he had at N4ZC's multi-multi contest station which was beginning the process of being disassembled after 14 years of operation.

Twenty Years Ago

Boys will be boys, and they were when AP1RL and FO0OL were spotted on the spotting networks of that day. . . . Kingman Reef and Palmyra Island were to be active for 7 days each in April, 1988 giving the DX World a stir. . . . the North Alabama DX club was extolling in their newsletter—Longpath—the virtues of having CDXA's PacketCluster node tied into nodes in Atlanta, Nashville, and Huntsville. Besides the 8 to 10 spotters that CDXA regularly had on our node, our position to the east of Huntsville alerted the Alabama crew to openings about to arrive further west. . . . the solar cycle was on the uptick with solar flux numbers increasing by 22 points since the previous month, but with that activity was increased geomagnetic interference.

The Pileup

Official Newsletter of the Carolina DX Association
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Published monthly 10 times per year, excluding the months of June and December.

The purpose of the association is to secure for the members the pleasures and benefits of the association of persons having a common interest in Amateur Radio.

Members of the CDXA shall adhere to "The Amateur's Code" as published from time to time in *The ARRL Handbook for Radio Amateurs*, and shall consist of those valid licensed amateur operators having an interest in promoting amateur radio. Long distance communications (DX) is of special interest to members of the association, but said interest is not a requirement of membership.

Dues are \$30 per year for those using the PacketCluster maintained by the Association, \$15 otherwise, payable each December. Dues are payable by check to the Secretary/Treasurer:

Cliff Wagoner, W3ZL
P. O. Box 577
Davidson, NC 28036

Address, telephone, and email address changes should be directed to the Secretary/Treasurer at the above address or via email at: jcw53@cornell.edu.

Propagation Refresher

By John Scott, K8YC

Twelve years ago this month I began serving as an operator in the radio room at the Discovery Place Science Museum. I'll be the first to admit that I was just beginning to "cut my teeth" at the DX game at that time. In fact, it was the first time I had ever seen a PacketCluster, and it led me to finding an organization called CDXA. More on that at another time.

My interest in DX and my need to be able to explain all facets of radio to my visitors soon led me to bone up on radio propagation. I had learned about the D, E, and F layers when I was first licensed in 1979, but exactly how they affected the quest of the serious DXer had not been at the forefront in those early days. I began to appreciate how the diurnal cycle of the sun, the annual cycle of the sun, and the eleven year sunspot cycle affects radio propagation and how those cycles juxtapose themselves with the various frequencies on which we hams are authorized to operate. Those visitors who stay the course when visiting the radio room usually walk away with an appreciation for the "science" of amateur radio, which after all is why the radio room is in the science center.

When the March 2008 issue of CQ Magazine came out, there was a handy article entitled, "How HF Signals Get from Here to There." This article would be a handy item for any Elmer to have in his teaching aids. Many old time DXers in CDXA have probably personally experienced more than one complete solar cycle and have observed propagation phenomena firsthand. Yet the article does a good job of pulling together ionospheric layers, frequencies, grayline, backscatter and time of day to give a succinct overview of propagation. It doesn't dwell on seasonal and solar cycle variations on propagation, but alludes to them in a Photo of the Xantek Inc. discontinued sliderule-like tool, The DX Edge. (I recall AA4S bringing the tool to a luncheon several years ago.)

If you're taking on the role of Elmer for anyone, or just feel the need to bone up a bit on radio propagation, I encourage you to revisit the article in CQ. If you don't subscribe to CQ, I'll loan you my copy for the asking.

A Bygone Era??!!



Above is an item from days gone by sent to me by Lynn Lamb, W4NL. Yes, the "lady of the house" is serving a brew to her ham husband. Today this ad would bear the label as "sexist" for placing the spouse in this role, and the rig would be so small as to render the whole scene uninteresting. The times they are a-changin'.

Welcome New Member

It is always a small triumph when a note comes from Cliff Wagoner that CDXA has a new member, and the past month is no exception to recent months. CDXA is pleased to welcome **Aaron Clinton, N1ARC**, from Clover, SC to our ranks. Aaron's roster entry is already on the website for those wishing to contact him. Your editor doesn't know much more about Aaron at this point, but from his email address, we believe he really likes the 1999 Ranger 4x4 that he drives (or used to drive)!

A “How To” for Logbook of the World

By John Scott, K8YC

Several years back, we heard Wayne Mills, N7NG, then of the ARRL, address the Charlotte Hamfest on bringing Logbook of the World (LoTW) to fruition. It has been running successfully since September, 2003. A number of CDXA members are regular users as are hams from all over the world.

As of the morning of March 28, here are the statistics:

Number of QSOs recorded	164,087,731
Number of QSLs matched	12,700,667
Number of unique users	19,853
Number of security certificates	30,264
Number of user files uploaded	560,757

To give you an idea of the activity on the system, three days after I collected the above statistics, I found that the number of QSO records had increased by over 469,000, the number of matched QSLs had increased by 36,155, and the number of uploaded files had increased by more than 2,950! My personal experience shows that there are more and more international hams now getting their digital certificates and uploading their logs. I recently had international QSL matches from as far back as 1998—the dates of my earliest log entries on LoTW. Contesters are regularly uploading their logs, apparently to reduce the QSL burden. Most recently, I had all of my QSOs with the Ducie Island DXpedition confirmed within days of their return home.

What is it? LoTW is designed to both speed the process and reduce the expense of QSLing while ensuring the integrity of the QSL process. It does this by enabling a user to digitally “sign” his log submission using an encryption key and emailing the log to ARRL. Upon receipt at ARRL HQ, the ARRL servers use a “public” decryption key to validate your log. Any tampering with your log while enroute will cause a rejection of your log at ARRL. Upon loading your log to LoTW, if the entry in your log finds a matching QSO within 30 minutes of your claimed QSO time, you’ll be credited with a QSL. If not, your entry is placed on the server awaiting the entry from your QSO partner. Your DXCC award record can be linked to LoTW so you have the complete status of your accepted QSLs available online. Uploading your logs to LoTW is free. Only if you choose to use a QSL from the LoTW for a DXCC submission do you incur a small fee ranging from \$.15 to \$.25 per QSL used—a fraction of the cost you’d spend on outbound postage and an IRC.

How do I get started? The first thing you need is an encryption key customized to you by the ARRL. This is easily accomplished by downloading the two “Trusted QSL” software modules from the ARRL. One of these modules is used to request your certificate from ARRL. After using the software to prepare your request, you send your request via email to ARRL. To ensure you are who you say you are, ARRL will send you a postcard to your FCC registered address. On that card is a password which you must use to sign onto the LoTW site and request your digital “key” by which you sign your logs. After suitable verification the ARRL will send you your digital “key” via return email. This key is then loaded to the “TQSL Cert” program to provide you a valid signing key. Don’t worry, a detailed PDF file is available on the LoTW website to walk you through each and every step I just discussed.

How do I upload my logs? If you are a serious DXer, you probably are using a logging program such as DX4WIN or Logger32. Most of these programs allow you to export your log data to a file in ADIF (Amateur Data Interchange Format) file format. You use your logging program to extract the range of log records you wish to upload. Using the second module (“TQSL”) you downloaded from the ARRL, you can digitally “sign” your log. After that, you merely email your “signed” log to an address at ARRL, and LoTW takes care of the rest. Usually within an hour, you’ll receive a receipt returned via email providing a synopsis of the activity performed during your log submission. Thereafter, periodically, you can sign onto LoTW to check out the status of any log submissions or QSL matches you’ve received.

What if I operate from a summer cottage in a different state or go on a DXpedition? Since some awards are state dependent (WAS) or country dependent (DXCC), if you’ve operated from a different venue, you should apply for additional certificates for each unique venue so that matched QSLs from other hams are credited with the correct entity from which you operated. Again, all this is outlined in material on the LoTW website.

Can I link my DXCC records to LoTW? Yes! You can even link records for multiple callsigns, assuming they were used from the same location for the award requirements. Once linked, you can see both your “accepted” QSLs and the impact of any new QSLs on LoTW which add to your totals.

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Can I submit my annual updates using LoTW and cards, too? If you signify at the time you make a DXCC submission using LoTW that you will be making a “hybrid” submission using field checked cards or cards sent direct to ARRL, your submission will be treated as a single submission for the calendar year.

What is the real world experience of individuals using LoTW? Roger Burt, N4ZC, has uploaded all of his old logs—over 173,800 entries going back to the 1950s. Yet, he has only 6265 QSLs on file. The reason for this is probably twofold. First, not everybody is going back that far in logging their QSOs because they didn’t have them committed to computerized records like N4ZC did. Secondly, some of the hams who provided QSOs over 20 years ago are probably deceased.

Les Murphy (K4DY), on 19 February 2008, reported to the ARRL that he now has 302 entities (298 active) confirmed via LoTW. He also has 1914 DXCC Challenge Award confirmations. Interestingly, Les’ earliest confirmation via LoTW was a QSO with—you guessed it—Roger Burt conducted on 14 February 1958.

Following Les’ announcement, Brian Alsop (K3KO) also reported arriving at 300 DXCC entities confirmed via LoTW on 4 April 2008. Brian has 1689 DXCC Challenge Award confirmations. He is one 80m contact short of 5BWAS until he gets a QSL from Montana which he hopes to earn on the weekend of 5-6 April in the Montana QSO Party! Brian has uploaded 136,000 QSO records resulting in 24000 QSLs..

What are YOU waiting for?

Charlotte Hamfest DXCC Activity

Gary Dixon reports the following DXCC Applications made at the recent Hamfest along with some historical numbers:

<u>Year</u>	<u># of Apps.</u>	<u>QSO’s checked</u>
2008	21	1204
2007	Not Recorded	Not Recorded
2006	24	2008
2005	17	1669
2004	21	1501

Despite being at the bottom of the sunspot cycle, QSOs are still being made!!

CDXA Name Badges

At the March 26 luncheon meeting, one of our members was wearing a CDXA name badge. Another member at the table asked how he could get such a name badge. Now that your editor is no longer a “brand new member” and has the added benefit of being in the ninth year of editing this publication, those kind of questions are relatively easy to answer.

We can thank then-president Bob Burton, N4PQX, for working with the Signman of Baton Rouge to get CDXA’s badge prepared. You can see the badge in its two color schemes on the Signman’s website, or if you’re adventuresome, you can go to the archives of the *Pileup* and check out the July, 2000 issue. The web address for the Signman is:

<http://www.thesignman.com>

Once there, you’ll find the CDXA’s badge under the “Club and Group” category. The \$8.50 price includes a standard safety-pin style fastener. For a small premium, dual military-style post/fasteners or magnetic fasteners can be affixed to your choice of badge. The various fastener styles can be found in the site index under “Fasteners”. Have fun shopping!

Are We Having Fun Yet?



Several years ago at the Charlotte Hamfest, Carl Smith (N4AA) challenged hams to have fun in the declining solar cycle working QRP and/or 80m. At the 2008 Hamfest, Lynn Lamb (W4NL) reported working 327 DXCC entities QRP with his Elecraft K2 in the past 8 years. (Photo by David, K4PZT).

The Back Page

Solar Minimum? You would not know it looking at recent DXpedition activity. See Page 1.

What was going on in CDXA 10 years ago? How about 20 years ago? Find out on Page 2. Better yet, spend some time drifting through time using the archives of the *Pileup* on the CDXA website.

You say you're a little rusty on **propagation** matters? Check out page 3 and the references to a recent issue of CQ Magazine.

Has inertia kept you from signing up for **Logbook of the World** (LoTW)? Well, get a move on, because most of what you need to know is summarized starting on Page 4. The rest can be found on the ARRL website.

Need a **CDXA name badge**? The Signman of Baton Rouge has the CDXA logo all set to be put on your very own name badge, thanks to some work done by Bob Burton (N4PQX) way back in 2000. I'll bet you forgot all about it. See page 5 for details.

We're getting to the slow times of the year as regards contesting, but Field Day 2008 is looming. Also, the ARRL June VHF Contest is coming up on June 14-16. With the warming of the atmosphere, it's time to plan your antenna work. **Remember, work safely!**

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First Class Mail

See something wrong with your address label? Notify W3ZL at once, please.